IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION:	DEREK WYATT
GROUP ART UNIT:	1794
SERIAL NUMBER:	10/816,093
EXAMINER:	PATTERSON, MARC A
FILING DATE:	2004.04.01
ATTORNEY DOCKET:	3084.EEM
TITLE:	METHOD FOR REDUCING FREEZE THAW VOIDS IN UNCURED ADHESIVES

BRIEF ON APPEAL

Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

Applicants hereby appeal the decision of the Primary Examiner finally rejecting claims 14 to 16, all pending claims.

The claims involved in this appeal are set forth in the CLAIMS APPENDIX.

I. REAL PARTY IN INTEREST

The real party in interest is Henkel AG & Co. KGaA, Duesseldorf, Germany, by virtue of a name change from Henkel KGAA and an Assignment of Certain Patents and Trademarks from National Starch and Chemical Investment Holding Corporation and Indopco, Inc. dated April 1, 2008.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to applicants that directly affect, or will be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 to 13 have been canceled.
Claims 14 to 16 are pending.
Claims 14 to 16 stand finally rejected under 35 USC §103(a) as being unpatentable over Seelich et al., US Patent 6,579,537 B2, in view of Ota et al., US Patent Publication 2003/0055179.

IV. STATUS OF AMENDMENTS

No amendment after final rejection was made. All earlier amendments were entered.

V. Summary of the Claimed Subject Matter

One claimed embodiment (claim 14) of the invention is directed to a method for reducing freeze/thaw voids in an uncured adhesive. Uncured adhesives are frequently shipped in a frozen state so that they do not cure, and within the electronics industry, they are provided in syringes. When adhesives are frozen and thawed, once or multiple times, tiny pockets of air or gases from the adhesive can form, which are known as voids, and which compromise the utility of the adhesive. This invention is a method for reducing those voids and consists essentially of providing the uncured adhesive in a container with walls of a thermoplastic material in which the walls have (i) a flexural modulus of less than or equal to 1240 MPa, and (ii) a thickness of 0.0254 to 1.524 mm and a mean roughness value (R_a) of greater than 0.3 μm, or (iii) a thickness of 0.0254 mm to 0.762 mm; then freezing and thawing the uncured adhesive, [paragraph [0004]], with the result that the thawed uncured adhesive contains fewer freeze/thaw voids than would be contained in an adhesive frozen and thawed in a container not meeting the limitations of (i), and (ii) or (iii) [paragraph [0016] and Figures 1 to 4].

VI. Grounds of Rejection to Be Reviewed on Appeal

Whether the Subject Matter of Claims 14 to 16 is Patentable over Seelich (US Patent 6,579,537 B2) in view of Ota et al. (US Patent Publication 2003/0055179).

VII. Argument

Claims 14 to 16 stand finally rejected under 35 USC § 103 (a) as being unpatentable over Seelich in view of Ota. It is the Examiner's argument that Seelich et al. disclose a syringe filled with an adhesive, which is frozen and thawed before use, and therefore disclose a method consisting essentially of filling a container with adhesive, freezing the adhesive within the container and thawing the adhesive. Ota et al. disclose a syringe having a flexural modulus of less than or equal to 1240 MPa and a thickness of 0.0254 mm to 0.762 mm for the purpose of obtaining a syringe that has a good balance of transparency and heat resistance. "It therefore would have been obvious for one of ordinary skill in the art at the time the invention was made to have provided for a flexural modulus of less than or equal to 1240 MPa and a thickness of 0.0254 mm to 0.762 mm in Seelich et al. in order to obtain a good balance of transparency and heat resistance as taught by Ota el a. Seelich et al. would therefore disclose a method for reducing freeze/thaw voids in uncured adhesive consisting essentially of providing the container, filling the container with the adhesive, and freezing and thawing the adhesive." With respect to claim 15, the material taught by Ota et al comprises polyethylene, and with regard to claim 16, because Ota et al. teach a syringe, it would have been obvious to provide a rigid sleeve for the purpose of preventing bending of the syringe and loss of liquid.

Applicant disagrees and urges that the claimed subject matter is not obvious over Seelich in view of Ota. Seelich teaches a method of single-step precipitation of a protein composition that comprises fibrinogen and fibronectin, which composition can be stored frozen in a syringe. Ota teaches a myriad of polyolefin compounds that can be used to form sheets, films, or hollow tubes, such as syringes. In paragraph 2691, Ota discloses extruded pellets of one composition having a flexural modulus of 203 MPa. In paragraph 1311, Ota discloses a film or sheet of another composition that has a thickness of 10 to 3000 μm. In paragraph 0015, Ota discloses that the polyolefin compounds can be synthesized to have a good balance of transparency and heat resistance.

The Examiner alleges that it would have been obvious from these disclosures to invent a syringe that has a flexural modulus of less than or equal to 1240 MPa and a thickness of 0.0254mm to 0.762 mm in order to obtain a good balance of transparency and heat resistance as taught by Ota and then concludes that the combination of Ota and Seelich therefore would disclose a method for reducing freeze/thaw voids in uncured adhesives by filling such a syringe and freezing and thawing the adhesive

This just does not hold. There is no apparent reason in either Ota or Seelich to combine their elements to reduce freeze thaw voids. Transparency and heat resistance, which are mentioned in the references, are independent of the presence of freeze thaw voids, which are not mentioned. It is possible to have transparency and heat resistance and still have freeze thaw voids. It is not predictable that the absence of freeze thaw voids would occur from the teachings of Ota and Seelich. Furthermore, there is no mention of the roughening of the syringe wall in either and it would be unpredictable that roughening would reduce freeze thaw voids. An inventive method is not proved obvious by demonstrating that each element was independently known in the prior art. It is necessary to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements for the intended result, and that has not been done.

Reversal of the Section 103 rejection of claims 14 to 16 as unpatentable over Seelich in view of Ota is respectfully requested.

Respectfully submitted,

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Dated: August 21, 2009

CLAIMS APPENDIX

14. A method for reducing freeze/thaw voids in an uncured adhesive consisting essentially of:

(a) providing a container with walls of a thermoplastic material in which the walls have

(i) a flexural modulus of less than or equal to 1240 MPa, and

(ii) a thickness of 0.0254 to 1.524 mm and a mean roughness value (R_a) of greater than 0.3 µm, or

(iii) a thickness of 0.0254 mm to 0.762 mm;

(b) filling the container with the uncured adhesive;

(c) freezing the uncured adhesive within the container;

(d) thawing the uncured adhesive;

characterized in that the thawed uncured adhesive contains fewer freeze/thaw voids than would be contained in an adhesive frozen and thawed in a container not meeting the limitations of (a)(i), and (ii) or (iii).

15. The method according to claim 14 in which the thermoplastic material is selected from the group consisting of polyethylene, ethylene-ethyl acrylate copolymer, ethylene-vinyl acetate copolymer, high density polyethylene, low density polyethylene, ethylene-octene copyolymer, ethylene-hexene copolymer, ethylene-butene copolymer, polypropylene homopolymer, polypropylene copolymer, and polypropylene random copolymer.

16. The method according to claim 14 in which the container is a syringe or a syringe contained within a rigid sleeve.

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

NONE